

PCT/EP2004/005134
Weckerle GmbH

October 19, 2005
W100681WO JH/Hdt/pes

Claims

1. Device for producing objects, for example lipsticks, that are molded from
5 paste-like materials, while using an elastic mold part (28), into which the
paste-like material is introduced by means of a filling device, is hardened,
and from which the at least largely hardened object is removed by a re-
moving device while said mold part is elastically stretched,
characterized in that a dimensionally stable housing element (12) is pro-
10 vided for housing said mold part, wherein said housing element is held in-
side a stationary or moveable support of said device,
- wherein said mold part (28) is placed in a housing space of said
housing element at least during the filling and removal process, and
- wherein said housing space can be enlarged for removing the object
15 and/or a thin fluid layer is placed between said mold part and said housing
element, which is removable from said housing element for the removal
process.
2. Device according to claim 1, characterized in that said fluid layer has a
20 thickness of at most 5 mm, preferably at most 2 mm.
3. Device according to claims 1 or 2, characterized in that a coat portion of
said mold part (28) at least predominantly, preferably completely abuts in
a planar fashion on said housing element (12).
- 25 4. Device according to any of the preceding claims, characterized in that said
housing element (12) comprises a release element (22, 26) which is mov-
able in relation to said mold in a planar fashion (28).

Translation of the claims of the PCT-Application

- 2 -

5. Device according to claim 4,
characterized in that the path of said movable release element (22, 26) is in
its end positions limited by block elements.
- 5 6. Device according to claims 4 or 5,
characterized in that between said mold part (28) and said movable release
element (26) a closed gas, respectively fluid volume is arranged to form a
thin fluid layer.
- 10 7. Device according to any of claims 4 to 6,
characterized in that an actuation element is provided which, controlled by
a control element of said device or by a removing device, actuates the
movable part of said housing element during the removal process and/or
sucks said fluid off the gap between said mold part (28) and said housing
15 element (12).
8. Device according to any of the preceding claims,
characterized in that the side of said mold part (28) which faces said hous-
ing element (26) has the shape of a cone, and that said housing element
20 (26) is formed as complementary cone-shaped recess (inner cone).
9. Device according to any of the preceding claims,
characterized in that said housing element (12) is made of metal, in par-
ticular of aluminum.
- 25 10. Device according to any of the preceding claims,
characterized in that said mold part (28) is made of silicone.
11. Device according to any of the preceding claims,
30 characterized in that said mold part (28) comprises a flange (32) at its up-
per filling end, which is fixed in said housing element (12).

Translation of the claims of the PCT-Application

- 3 -

12. Device according to any of the preceding claims,
characterized in that said housing element (12) comprises a standardized
adapter (16) to be housed in a traditional revolving-cycle lipstick pouring
5 machine.
13. Production mold (10) for producing objects, for example lipsticks, that are
molded from paste-like materials, in particular for a device according to
any of the preceding claims, comprising
- 10 - an elastic mold part (28) for housing the paste-like material,
- a dimensionally stable housing element (12) for housing the elastic
mold part (28), wherein said housing element is formed to be housed in-
side a stationary or moveable support of a production machine for objects
made of paste-like materials,
- 15 - wherein said mold part (28) is placed in a housing space of said
housing element (12), and
- wherein said housing space can be enlarged for removing the object
and/or a thin fluid layer is placed between said mold part (28) and said
housing element (26), which is removable from the gap between said mold
20 part and said housing element for the removal process.
14. Production mold according to claim 13, wherein a dimensionally stable,
hollow-cylindrical filling element (40), for example made of metal, is pro-
vided, which can be placed onto said housing element (12), respectively
25 onto said mold part (18), and the inner wall (50) of which forms the mold
for an end section of said object.
15. Method for producing objects, for example lipsticks, that are molded from
paste-like materials, while using an elastic mold part (28), into which the
30 paste-like material is introduced, hardened, and from which the at least

Translation of the claims of the PCT-Application

- 4 -

largely hardened object is removed while said mold part is elastically stretched,

characterized in that

- 5 - said mold part (28) is placed in a housing space of a dimensionally stable housing element (12) during the filling and removal process in order to prevent/limit the stretching of said mold part, and that for stretching said mold part for the removal process said housing space is enlarged and/or a thin fluid layer is provided between said mold part and said housing element, having a maximum thickness of 5 mm, preferably of maximally 2
10 mm, said fluid layer is removed from the gap for the removal process in order to generate a vacuum acting upon the external wall of said mold part.

- 16. Method according to claim 15,
 wherein said mold part (28) at least predominantly abuts the housing element (26) during the filling process.
15
- 17. Method according to claims 15 or 16,
 wherein said fluid layer is used with a thickness of at most 5 mm, preferably at most 2 mm.